## AMENDMENTS TO THE CLAIMS

**In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (original) A programmable logic module, comprising:

a first printed circuit board having a socket and a downloading unit;

a field programmable gate array (FPGA) disposed on the first printed circuit board;

a nonvolatile memory storing program codes for programming the field programmable gate array, wherein the nonvolatile memory is fixed by soldering to a second printed circuit board with a plurality of pins corresponding to the socket, and the second printed circuit board is plugged into the socket of the first printed circuit board; wherein the nonvolatile memory downloads program codes thereof to the field programmable gate array by the downloading unit.

2. (original) The programmable logic module as claimed in Claim 1, wherein the nonvolatile memory is fixed by soldering to the second printed circuit board by a surface mounted technology.

3. (original) The programmable logic module as claimed in Claim 2, wherein the nonvolatile memory is packaged in a COB (chip on board) package.

4. (original) The feedback control I/O buffer as claimed in Claim 1, wherein the nonvolatile memory is packaged in a thin small outline package (TSOP) or a small outline J-lead package (SOJ).

5. (original) The programmable logic module as claimed in Claim 1, wherein the nonvolatile memory is packaged in a quad flat package, a plastic quad flat package (FQGP), a thin quad flat package or a quad flat J-lead package.

6. (original) The programmable logic module as claimed in Claim 1, wherein the nonvolatile memory is a flash memory.

7. (original) The programmable logic module as claimed in Claim 1, wherein the nonvolatile memory is packaged in a ball grid array (BGA) package or fine pitch BGA package.

8. (Original) An upgrade method for a programmable logic module, wherein the programmable logic module has a first printed circuit board with a socket, a downloading unit, a field programmable gate array and a nonvolatile memory is fixed by soldering to a second printed circuit board, and the second printed circuit is plugged into the socket, the upgrade method comprising:

removing the second printed circuit with the nonvolatile memory from the socket on the first printed circuit board;

disposing the second printed circuit with the nonvolatile memory on a writer;

writing a new program into the nonvolatile memory by the writer;

inserting the second printed circuit board with the nonvolatile memory into the socket, wherein the new program is stored in the nonvolatile memory; and

downloading the new program stored in the nonvolatile memory to the field programmable gate array by the downloading unit.

9. (Original) The upgrade method as claimed in Claim 8, wherein the nonvolatile memory is fixed to the second printed circuit board by surface mounted technology.

10. (Original) A programmable logic module, comprising:

a first printed circuit board having a power pin region and a plurality of I/O pin regions, wherein the power pin region is separated from the I/O pin regions, each power pin region and I/O pin region has a plurality of pins;

a field programmable gate array disposed on the first printed circuit board, wherein the field programmable gate array has a plurality of power terminals and I/O terminals;

a nonvolatile memory storing program codes for programming the field programmable gate array;

wherein each I/O terminal of the field programmable gate array is electrically connected to a corresponding pin in the I/O pin region, all power terminals of the field programmable gate array are electrically connected to pins in the power pin region, and the pins in the power pin region and the I/O pin regions are connected to external circuits through different connectors.

11. (Original) The programmable logic module as claimed in Claim 10, wherein the first printed circuit board further has a socket, and the nonvolatile memory is fixed by soldering to the second printed circuit board.

12. (Currently amended) The programmable logic module as claimed in Claim 11, wherein the second printed circuit board has a plurality of pins corresponding to the socket such that the second printed circuit board is plugged into the first printed circuit board.

13. (Original) The programmable logic module as claimed in Claim 11, wherein the nonvolatile memory is soldered on the second printed circuit board by surface mounted technology.

14. (Original) The programmable logic module as claimed in Claim 10, wherein the nonvolatile memory is a flash memory.